

# 即食醬料及類似製品的微生物質素

## Microbiological Quality of Ready-to-eat Sauces and like Products

03 2026

# 引言

## INTRODUCTION

即食醬料及類似製品(肉汁、調味醬汁和蘸醬)  
常佐餐食用，用以提升食物的風味或搭配菜  
餚

可能因沒有遵循衛生守則或不當的食物處理  
方式而構成風險

Ready-to-eat (RTE) sauces and like products such as gravies, dressings, and dips, are often served alongside other foods to enhance its flavour or complement dishes

Potential risk due to failure in observing hygiene practices and improper food handling

# 肉汁和調味醬的風險

## RISK OF GRAVIES AND SAUCES

肉汁通常熱食，而調味醬或蘸醬一般凍食或在室溫下食用

- 通常大批量地製造
- 可能長時間在沒有妥善控制溫度的情況下貯存

Gravies are typically served hot, dressings or dip are generally served cold or at room temperature

- Often made in large batches
- May be held for extended periods without proper temperature control



# 肉汁和調味醬的風險

## RISK OF GRAVIES AND SAUCES

### 肉汁

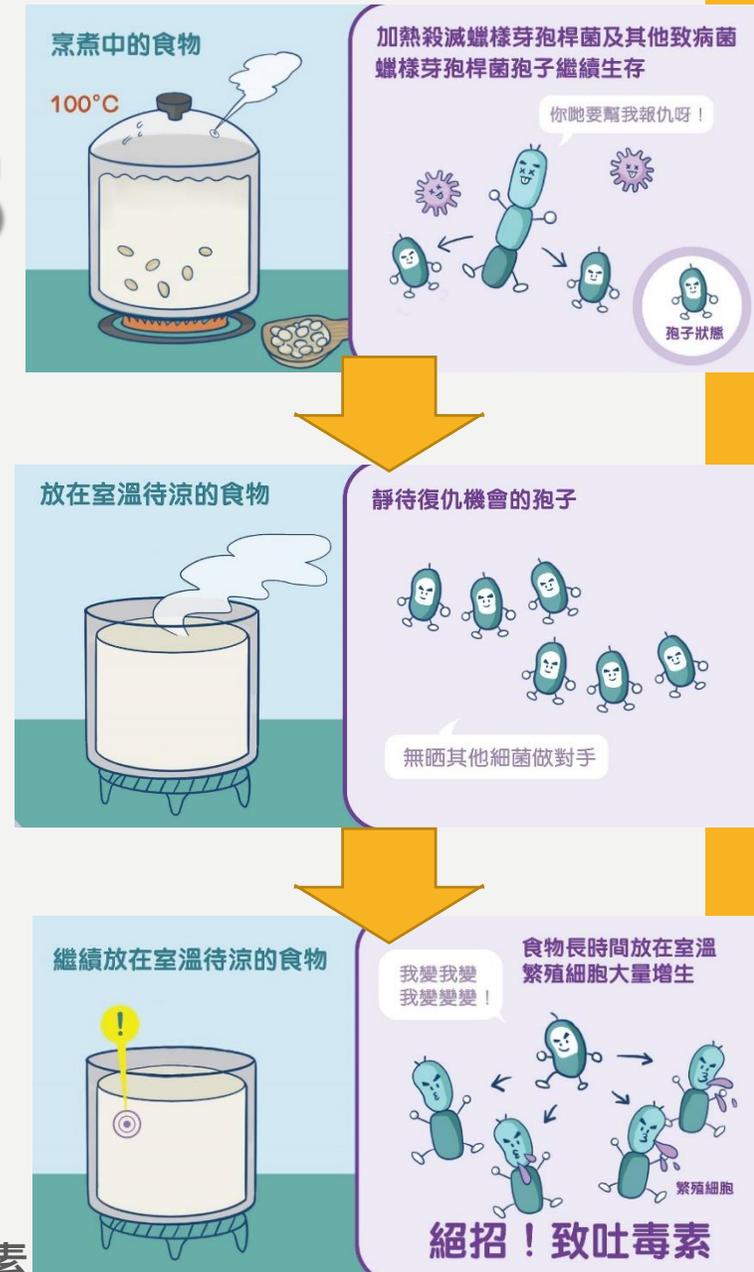
- 或要進行加熱、冷卻及反覆加熱處理
- 讓產生孢子的細菌繁殖
- 例如 產氣莢膜梭狀芽孢桿菌 與 蠟樣芽孢桿菌

### Gravies

- May be heated, cooled, and re-heated successively
- Allow spore-forming bacteria to grow
- E.g. *Clostridium perfringens* & *Bacillus cereus*

蠟樣芽孢桿菌可在食物中產生耐熱毒素

*Bacillus cereus* can produce a heat-stable toxin in food



# 肉汁和調味醬的風險

## RISK OF GRAVIES AND SAUCES

### 調味醬汁和蘸醬

- 經常包含未經烹煮的新鮮配料
  - 番茄、洋蔥與香草
- 蛋類醬料或含有生蛋
  - 美乃滋、蒜泥蛋黃醬與塔塔醬

### Dressings or dip

- include fresh ingredients without cooking
  - Fresh tomato, onion and herbs
- Egg-based sauces may contain raw eggs
  - Mayonnaise, aioli, and tartare sauce

# 肉汁和調味醬的風險

## RISK OF GRAVIES AND SAUCES



焦點個案

Incident in Focus

### 二零一六年有關食肆及食物業的食源性 疾病個案回顧

Review of Foodborne Disease Outbreaks Related to  
Food Premises and Food Business in 2016

#### 預先包裝醬料會因食物處理不當而出現問題

- 酸忌廉
- 食肆在期間曾把一大瓶酸忌廉重新分裝為小瓶，並在重新分裝過程中經多重處理
- 食物處理人員沒有遵行食物衛生守則，與其他食物交叉污染，以及重新分裝和不斷添加酸忌廉，均對食物構成交叉污染風險

Prepackaged sauce may also have problem caused by malpractice in handling of food

- Sour cream sauce
  - One large bottle of sour cream sauce was re-packed into smaller bottles and multiple handling occurred during the re-packing procedure
  - Improper food hygienic practices by food handlers, cross contamination with other foods, re-packing and continual topping-up of sour cream sauces posed a risk of cross-contamination

# 研究目的

## OBJECTIVE

評估本地食物業處所供應或配製的即食醬料及類似製品的微生物質素

- 較常見而且可能有潛在微生物風險

1. 調味醬汁或蘸醬（一般凍食或在室溫下食用）
2. 肉汁（熱食）

To assess the microbiological quality of RTE sauces and like products served or prepared by local food premises

- Commonly available and with potential microbiological risk
  1. Dressings, dips (usually refrigerated or left under ambient conditions)
  2. Hot-served gravies

# 樣本種類

## SAMPLE TYPES

| 種類 Type  | 樣本數目 No. of Samples |                      | 總數 Total   |
|--|---------------------|----------------------|------------|
|  | 連鎖店 Chain store     | 獨立店 Individual store |            |
| <b>調味醬汁或蘸醬 Dressings, dips</b>                         |                     |                      |            |
| 含蛋配料 Contain egg ingredients                           | 5                   | 5                    | 10         |
| 含蔬果配料 Contain fruit or vegetables ingredients          | 5                   | 5                    | 10         |
| 含奶類配料 Contain dairy ingredients                        | 5                   | 5                    | 10         |
| 其他 (如芝麻、沙嗲) Others (e.g. sesame, satay)                | 10                  | 10                   | 20         |
| <b>熱食肉汁 Hot-served gravies</b>                         |                     |                      |            |
| 咖哩汁 Curry sauce  | 5                   | 5                    | 10         |
| 忌廉汁 Cream sauce  | 5                   | 5                    | 10         |
| 番茄汁 Tomato sauce                                       | 5                   | 5                    | 10         |
| 其他 (如照燒汁,牛腩汁) Others (e.g.teriyaki,beef brisket sauce) | 10                  | 10                   | 20         |
| <b>Total</b>   | <b>50</b>           | <b>50</b>            | <b>100</b> |

# 結果和討論

# RESULTS AND DISCUSSION



# 微生物安全

## MICROBIOLOGICAL SAFETY

| 準則<br>Criterion  | 檢測結果(每克樣本的菌落形成單位)<br>Result (cfu/g)    |                                     |   |
|--|--|-------------------------------------|---|
|  | 滿意<br>Satisfactory                     | 尚可<br>Borderline                    | 不滿意<br>(可能危害健康及<br>或不宜供人食用)<br>Unsatisfactory:<br>potentially injurious to health and/or<br>unfit for human consumption |
| 沙門氏菌屬<br><i>Salmonella</i> spp.  | 在25克樣本中<br>沒有檢出<br>Not detected in 25g | N/A                                 | 在25克樣本中檢出<br>Detected in 25g  |
| 金黃葡萄球菌及其他凝固酶陽性葡萄球菌<br><i>S. aureus</i> and other coagulase-positive<br>staphylococci | < 20                                   | 20 - ≤10 <sup>4</sup>               | > 10 <sup>4</sup>   |
| 蠟樣芽孢桿菌<br><i>Bacillus cereus</i>   | < 10 <sup>3</sup>                      | 10 <sup>3</sup> - ≤ 10 <sup>5</sup> | > 10 <sup>5</sup>   |
| 產氣莢膜梭狀芽孢桿菌<br><i>Clostridium perfringens</i>   | < 10                                   | 10 - ≤ 10 <sup>4</sup>              | > 10 <sup>4</sup>   |

所有樣本均為滿意  
Samples were all found satisfactory

# 微生物質素

# MICROBIOLOGICAL QUALITY

根據《食品微生物含量指引》

Refers to “Microbiological Guidelines for Food”

| 指引的食物類別<br>Food category in the Guidelines   | 檢測結果 (每克樣本的菌落形成單位)<br>Result (colony-forming unit (cfu/g)) |                  |                       |
|--|--|------------------|-----------------------|
|  | 滿意<br>Satisfactory   | 尚可<br>Borderline | 不滿意<br>Unsatisfactory |
| <b>需氧菌落計數檢測結果[攝氏30度/48小時] ACC [30°C /48 hours]</b>   |  |                  |                       |
| <b>類別 Category 2</b><br>在緊接出售或進食前烹煮的食物<br>Foods cooked immediately prior to sale or consumption  | $<10^3$  | $10^3 - <10^5$   | $\geq 10^5$           |
| <b>類別 Category 5</b><br>經烹煮並冷凍，在出售或進食前經若干處理程序的食物<br>Cooked foods chilled but with some handling prior to sale or consumption   |  |                  |                       |
| <b>類別 Category 6</b><br>非發酵乳製品及乳製甜品、蛋黃醬及以蛋黃醬為主的調料醬、<br>經烹煮的醬汁<br>Non-fermented dairy products and dairy desserts, mayonnaise and mayonnaise based dressings, cooked sauces | $<10^5$  | $10^5 - <10^7$   | $\geq 10^7$           |
| <b>類別 Category 10 – 12</b><br>例如: 新鮮水果和蔬菜、含有生的蔬菜的食品<br>For example: Fresh fruit and vegetables, products containing raw vegetables   | N/A  | N/A              | N/A                   |
| <b>衛生指示微生物 - 大腸桿菌 Hygiene indicator organisms - <i>E. coli</i></b>   |  |                  |                       |
|  | $<20$  | $20 - \leq 10^2$ | $>10^2$               |

# 需氧菌落計數結果

## ACC RESULT

(適用樣本數目 NUMBER OF APPLICABLE SAMPLES = 75)

|                             | 需氧菌落計數結果 (每克樣本的菌落形成單位) |                                   |                                   |                                   |                                   |                       |
|-----------------------------|------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------|
|                             | ACC Result (cfu/g)     |                                   |                                   |                                   |                                   |                       |
|                             | <10 <sup>3</sup>       | 10 <sup>3</sup> -<10 <sup>4</sup> | 10 <sup>4</sup> -<10 <sup>5</sup> | 10 <sup>5</sup> -<10 <sup>6</sup> | 10 <sup>6</sup> -<10 <sup>7</sup> | ≥10 <sup>7</sup>      |
| 類別Food category 6<br>(n=29) | 滿意<br>Satisfactory     |                                   |                                   | 尚可<br>Borderline                  |                                   | 不滿意<br>Unsatisfactory |
| 調味醬汁或蘸醬<br>Dressings, dips  | 26                     | 2                                 | 1                                 | 0                                 | 0                                 | 0                     |
| 類別Food category 2<br>(n=47) | 滿意<br>Satisfactory     | 尚可<br>Borderline                  |                                   | 不滿意<br>Unsatisfactory             |                                   |                       |
| 熱食肉汁<br>Hot-served gravies  | 46                     | 0                                 | 0                                 | 1                                 | 0                                 | 0                     |

熱肉汁樣本(咖喱汁)的需氧菌落計數水平屬不滿意  
The ACC of one curry sauce was rated as unsatisfactory for quality

咖喱汁 Curry sauce  $5.9 \times 10^5$

# 大腸桿菌結果

## ***E. coli*** RESULT

- 一個牛油果類蘸醬(牛油果醬)樣本被驗出大腸桿菌含量  $1.3 \times 10^5$  cfu/g
  - 衛生質素欠佳
- 
- One avocado dip sample was rated as unsatisfactory, with  $1.3 \times 10^5$  cfu/g *E. coli* detected
  - Unsatisfactory for hygiene

# 跟進行動

## FOLLOW-UP ACTIONS

- 一個熱肉汁樣本(咖喱汁) 和一個牛油果類蘸醬(牛油果醬) 樣本分別在質素及衛生方面被評為欠佳
  - 對於兩個樣本之結果，中心到相關食肆展開後續調查，以了解其製作過程
- 
- One hot gravy sample (curry sauce) and one avocado-based dip (guacamole) sample were rated as unsatisfactory for quality and hygiene, respectively
  - In response to results of these samples, follow up investigations to the food premises concerned was conducted to understand the preparation process

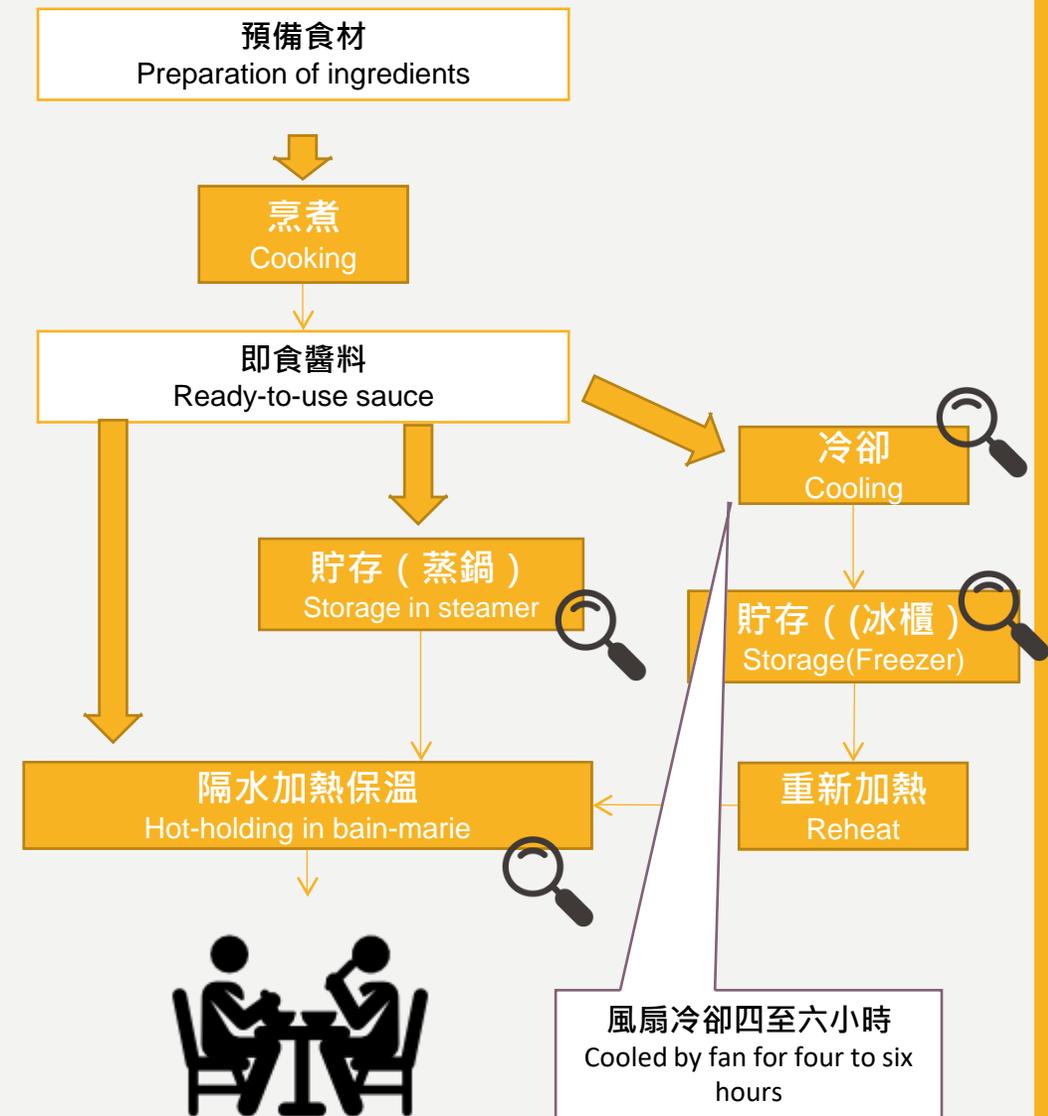


# 咖喱汁 - 需氧菌落計數

## CURRY SAUCE - ACC

- 需氧菌落計數是一項質素指標，可受不同因素影響，包括配料的微生物質素、烹調後冷卻的溫度控制和在後期加工時受到污染
- 進一步調查顯示有關肉汁的熱存溫度可能偶爾不足，而冷卻至攝氏20度所需的時間或超出建議的兩小時或以下完成

- ACC is an indicator of quality. ACC level can be influenced by various factors, including the microbiological quality of ingredients, temperature control during the cook-chill process and post-process contamination
- Further investigation revealed that the hot-holding temperatures may occasionally be insufficient, and the cooling time to reach 20°C could exceed the recommended duration of two hours or less



# 牛油果醬-大腸桿菌

## GUACAMOLE - ACC

- 大腸桿菌是常用的糞便污染指示微生物，食物含有大量大腸桿菌，即顯示在處理食物時普遍忽視清潔衛生，而且沒有把食物妥為貯存
  - 就有關製造過程所作的檢討顯示有需要改善個人及食物衛生措施，包括在廚房提供洗手梘液。
  - 不經烹煮的生食材是潛在的污染來源，應以嚴格的衛生措施來處理即食生食材
- 
- *E. coli* is a commonly used faecal indicator organism. Substantial number of *E. coli* in food suggests a general lack of cleanliness in handling and improper storage.
  - A review of the production process highlighted the need for improved personal and food hygiene practices, including the provision of soap for handwashing in the kitchen
  - Fresh ingredients intended for use without cooking have been identified as a potential source of contamination, and they should be handled with strict hygiene practices during food preparation

# 跟進行動

## FOLLOW-UP ACTIONS

- 中心已提醒店鋪商戶在處理即食食材時須遵守良好衛生規範，避免交叉污染及細菌滋生
- 中心已再到相關食肆抽取同一款式的食物樣本作微生物化驗，測試結果全屬滿意

- The vendors of the shops were reminded to follow GHPs when handling ready-to-eat ingredients to prevent cross-contamination and the growth of bacteria
- Follow-up samples were taken from the concerned shops and the results were satisfactory



# 整體微生物質素

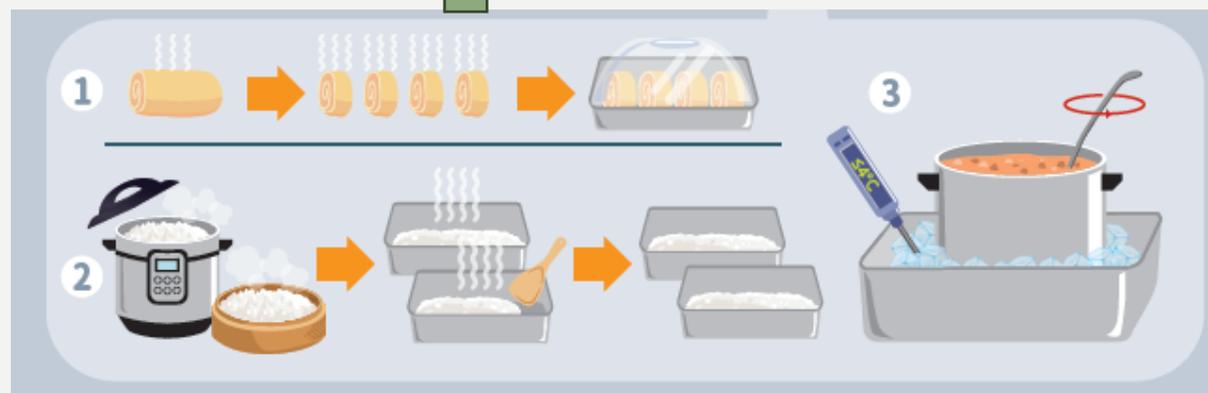
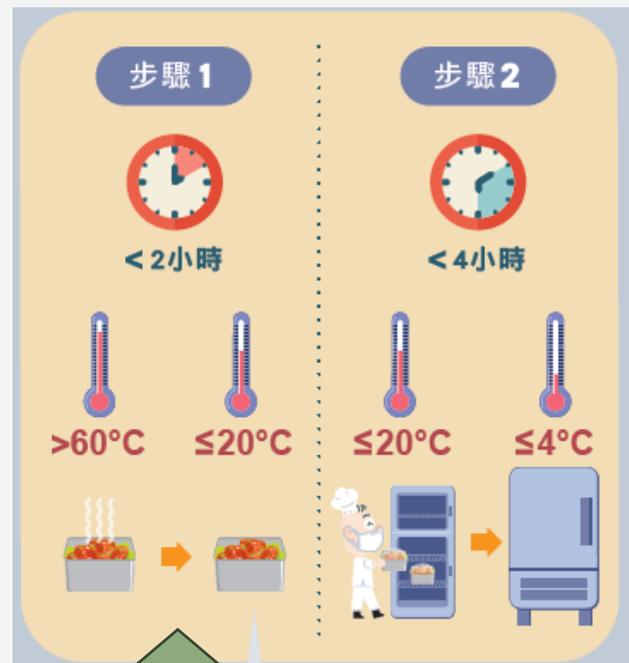
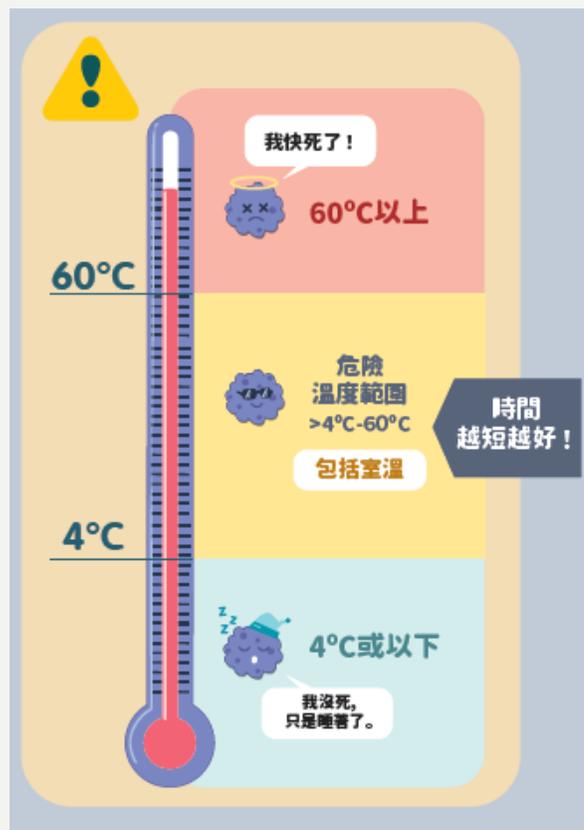
## OVERALL MICROBIOLOGICAL QUALITY

- 即食醬料及類似製品的微生物質素整體令人滿意
- 然而，一個熱肉汁樣本(咖喱汁) 和一個牛油果類蘸醬(牛油果醬)樣本分別在質素及衛生方面被評為欠佳，但不涉及食物安全問題

- The microbiological quality of sauces and like products collected in this study was generally satisfactory
- However, one hot gravy sample (curry sauce) and one avocado-based dip (guacamole) sample were rated as unsatisfactory for quality and hygiene, respectively.

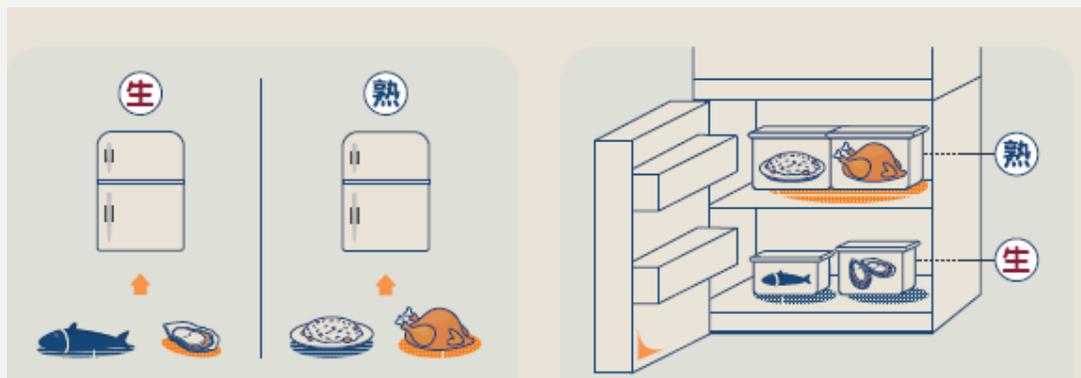
# 冷卻及重新加熱熟食

## COOLING AND REHEATING PREPARED FOODS



# 食物及個人衛生

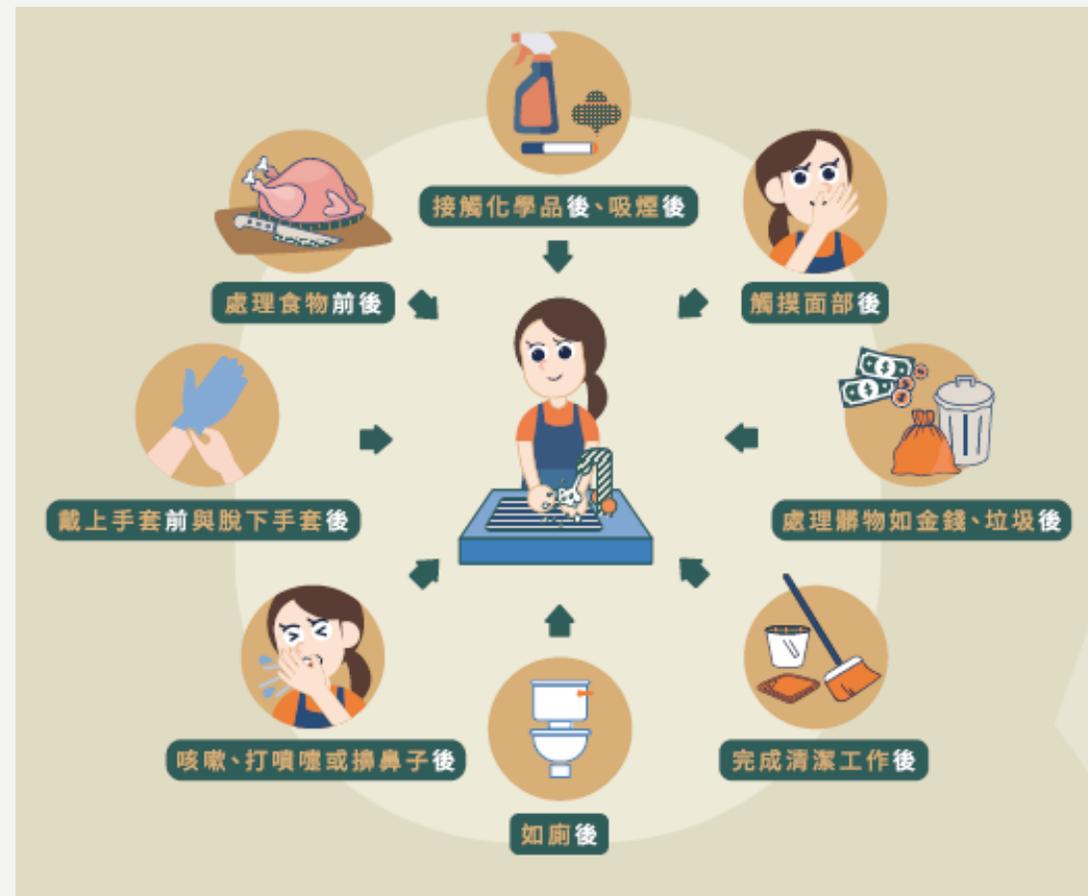
## FOOD AND PERSONAL HYGIENE



The diagram illustrates food storage and refrigerator layout. On the left, two refrigerators are shown. The first is labeled '生' (Raw) and contains raw fish and shellfish. The second is labeled '熟' (Cooked) and contains cooked rice and a whole chicken. On the right, a refrigerator is shown with two shelves. The top shelf is labeled '熟' (Cooked) and contains a plate of food and a whole chicken. The bottom shelf is labeled '生' (Raw) and contains a fish and a shellfish.

用兩個雪櫃分開貯存生的食物和熟食或即食食物

如須把生的食物和熟食或即食食物貯存在同一雪櫃內，必須以有蓋的容器貯存，並把熟食和即食食物放在雪櫃上層，生的食物放在下層，以防生的食物的汁液滴在熟食或即食食物上



# 不經烹煮的生食材的風險

## RISK OF FRESH INGREDIENTS

- 用於調製醬汁或蘸醬的生鮮食材如香草、香料、洋蔥及番茄等可能成為污染源
- 過往暴發的案例：芝士醬（韭蔥）、義大利麵沙拉（羅勒）
- 確保生鮮食材的微生物品質符合直接食用標準至關重要，且處理過程須嚴格遵循良好食品衛生規範

- Raw ingredients such as fresh herbs or spices, onions, and tomato, etc. used in the preparation of dressings or dips can be sources of contamination
- Previous outbreaks: leek in cheese sauce & basil in pasta salad
- Important to ensure the microbiological quality of raw ingredients is suitable for direct consumption and that these ingredients should be handled with strict good food hygiene practices

# 如何改進

## HOW TO IMPROVE

對於熱肉汁而言，可產生孢子的細菌構成特殊隱患，因其抵受烹煮熱力

任何烹煮後**時間和溫度控制**不當，皆可能導致細菌大量繁殖，進而引發食物中毒

醬料與蘸醬常需混合生鮮原料，此類原料可能成為污染源

食品處理人員亦須注重此類原料的**良好食品衛生規範**

For hot gravies, spore-forming bacteria pose a particular concern, as they can survive cooking temperature

Any improper **time/temperature control** in the post-cooking process could allow these bacteria to proliferate, potentially leading to food poisoning

Dressings and dips often involve mixing raw ingredients, which can serve as sources of contamination

Food handlers should also pay attention to **hygienic handling** of these ingredients

# 結論

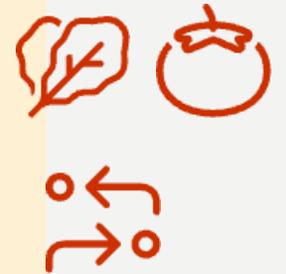
## CONCLUSION

- 即食醬料及類似製品的微生物質素整體令人滿意
  - 然而，有兩個樣本的細菌含量分別顯示在處理食物的程序及個人和環境衛生方面或有改善空間，但不涉及食物安全問題
  - 為確保食物安全，應採取適當的時間和溫度控制措施，還應遵守良好的個人和環境衛生守則，以盡量減少交叉污染和細菌滋生
- 
- The overall microbiological quality of RTE sauces and like products was satisfactory
  - However, bacterial count of two samples indicated that there may be room for improvement in personal and environmental hygiene but there was no food safety concern
  - Proper time and temperature control should be implemented to ensure food safety. Besides, good personal and environmental hygienic practices should be observed to minimise the chance of cross contaminations and the growth of bacteria

# 給業界的建議

## ADVICE TO TRADE

- 預先烹製的醬料如非立即食用，應在兩小時內放進保溫或冷凍裝置中妥善貯存。熱食必須熱存在攝氏60度以上，而冷食應冷存在攝氏4度或以下
- 從認可和可靠的來源購入生的食材。如以生雞蛋或奶製品製作調味醬汁及蘸醬，選用經巴士德消毒的雞蛋、芝士及奶製品等較為安全為確保食物安全
- 生的食物應與熟食及即食食品分開存放，以免交叉污染。經配製的即食配料須與生的食材分開貯存在雪櫃內。生食配製區與處理即食食品的區域應盡可能分隔開



- Precooked sauce should be stored properly in hot or cold-holding devices within two hours if not intended for immediate serving. Hot food must be maintained at temperatures over 60 °C and cold food should be kept at 4 °C or below
- Raw food ingredients should be obtained from approved and reliable sources. When using raw eggs or milk products in dressings and dips, pasteurised options, such as pasteurised egg, cheese, and milk products, are safer choices
- Separate raw food from cooked and RTE food to avoid cross-contamination. Prepared RTE ingredients have to be stored separately from raw food ingredients in the refrigerator. The preparation areas for raw food should be separated from areas for handling of RTE food, as far as possible

# 給市民的建議

## ADVICE TO PUBLIC



- 含有生或未經煮熟配料的即食醬料或類似製品在購買後應盡早食用



- 高危人士(包括孕婦、幼童、長者、免疫力弱人士，以及服用抗生素和抗胃酸藥人士)不宜進食含有生或未經煮熟配料的即食醬料或類似製品



- Consume sauces or like products with raw or undercooked ingredients ASAP after purchase



- High-risk groups, including pregnant women, young children, the elderly, immunocompromised persons, and persons taking antibiotics and antacids, are advised not to consume RTE sauces or like products with raw or undercooked ingredients

# WWW.CFS.GOV.HK



安樂飯  
安查飯

## Ready-to-eat Food

General Hygiene Advice for Food Businesses



安樂飯  
安查飯

## 即食食品

給食物業界的一般衛生建議



食物環境衛生署  
Food and Environmental Hygiene Department

食物安全中心  
Centre for Food Safety



安樂飯  
安查飯

## Cooling and Reheating Prepared Foods

Food Safety Guidelines for Food Businesses



安樂飯  
安查飯

## 冷卻及重新加熱熟食

給食物業的食物安全指引



食物環境衛生署  
Food and Environmental Hygiene Department

食物安全中心  
Centre for Food Safety



衛生署  
Environmental Department

食物安全中心  
Centre for Food Safety



中文



English

多謝  
THANK YOU